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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,992	03/23/2004	David S. Fredley	CE12409JME	2320

24273 7590 05/08/2006

MOTOROLA, INC
INTELLECTUAL PROPERTY SECTION
LAW DEPT
8000 WEST SUNRISE BLVD
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EXAMINER

BLEVINS, JERRY M

ART UNIT	PAPER NUMBER
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2883

DATE MAILED: 05/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/806,992	FREDLEY ET AL.	
	Examiner	Art Unit	
	Jerry Martin Blevins	2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-14 and 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 23, 2006 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1-4, 6-14, and 16-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2883

Claims 1, 4, 6, 9-11, 14, and 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pre Grant Publication to Hikspoors et al., number 2005/0231654.

Regarding claims 1, 6, 11, 17, and 18, Hikspoors teaches a (method of increasing the efficiency of a) light guide system (Figure 1), comprising: (providing) a light conduit (30) having non-luminescent light directing portions that direct light to a display structure (36) in a non-random manner; and (coating the light conduit with) a conformal reflective material (33) coated to the light conduit without a boundary between the light conduit and the reflective material.

Regarding claims 4 and 14, Hikspoors teaches a light source (1) optically coupled to the light conduit.

Regarding claim 9, Hikspoors teaches that the light conduit is part of an electronic device (projector 3).

Regarding claims 10 and 16, Hikspoors teaches that the light conduit includes a substantially planar surface (31) at which the reflective material is coated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 7, 12, 13, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hikspoors in view of US Patent to Herron et al., number 5,919,712.

Regarding claims 2, 3 and 12, 13, Hikspoors teaches the limitations of the base claims 1 and 11, respectively. Hikspoors does not teach that the reflective material defines a border of a volume through which light can travel and that the index of refraction of the volume is substantially constant and is the index of refraction of the light conduit. Herron teaches a reflective material (column 10, lines 17,18) coated to a light conduit (Figure 3C, element 302) which defines a border of volume (the waveguide) through which light can travel (column 10, lines 25,26) and that the index of the volume is substantially constant (column 9, lines 65-67 teach that the waveguide has a substantially constant index of refraction from about 1.46 to 1.52) and that the index of volume is the index of refraction of the light conduit (since column 10, lines 25,26 teach that the volume through which the light can travel is the conduit). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hikspoors with the reflective material of Herron. The motivation would have been to reduce scattering of light.

Regarding claims 7 and 20, Hikspoors teaches the limitations of the base claims 1 and 17, respectively. Hikspoors does not teach that the (coating includes applying) reflective material includes at least one of tin, nickel, copper, zinc, aluminum, silver, gold, chromium, and an alloy and a composite thereof. Herron teaches that the reflective coating materials include aluminum or silver (column 10, lines 29,30). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hikspoors with the reflective material of Herron. The motivation would have been to increase the reflectance.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hikspoors in view of US Pre Grant Publication to Hetzer, number 2001/0041041.

Regarding claim 8, Hikspoors teaches the limitations of the base claim 1. Hikspoors does not teach that the light conduit is a transparent member. Hetzer teaches waveguide elements (Figure 3, elements 9 and 10) which are transparent members (page 2, paragraph 22 and page 3 paragraph 47). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the transparent waveguide of Hetzer as the waveguide of Hikspoors. The motivation would have been to localize and concentrate the light through the waveguide (Hetzer, page 2, paragraph 22).

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hikspoors in view of US Pre Grant Publication to Kragl, number 20040008952.

Regarding claim 19, Hikspoors teaches the limitations of the base claim 17. Hikspoors does not teach that the coating step includes spraying reflective material. Kragl teaches a method of coating an optical waveguide with reflective silver coating using a spraying technique (page 8, paragraph 87). It would have been obvious to one of ordinary skill in the art at the time of the invention to include in the step of coating of Hikspoors the technique of spraying reflective material as taught by Kragl. The motivation would have been to perform the coating in a simple, economic, well-known method (Kragl, page 8, paragraph 87).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry Martin Blevins whose telephone number is 571-272-8581. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMB



Frank G. Font
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